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陕西蓝田两栖犀一新属*

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这篇报告記述了两栖犀科中的一个新属——西安两栖犀 (*Sianodon* gen. nov.)。其中一部分材料是中国科学院地质研究所,于1959年在陕西省西安市坝河西岸毛西村采集的,化石产于白綠色砂岩夹巧克力色的粘土层中(刘东生等, 1960); 另一部分是本所新生代研究室, 1963年在坝河东岸蓝田县新街鎮沙河子沟南岸的白砂岩层中采集的(张玉萍等, 1964)。这两个地点产两栖犀化石地层的层位可以对比(张玉萍等,同上)。刘东生等認为含两栖犀化石地层的层位属于始新—漸新統白麓塬組,在这一层之上为含利齿猪化石的中新統寇家村組(刘东生等,同上)。

西安两栖犀在头骨及頰齿的构造上有一些原始的特征,可与分布在北美、欧亚大陆上始新統的 *Amynodon*, 緬甸上始新統旁当組 (Pondaung) 的 *Paramynodon* 属,及北美加利福尼亚州上始新統 Sespe 組的 *Amynodontopsis* 属相比; 但另一些特点却較为特化,而又不及漸新統的 *Cadurcodon* 属特化。就其形态来看,西安两栖犀为介于 *Paramynodon* *Amynodontopsis* 与 *Cadurcodon* 之間,代表一新的类型。两栖犀科到目前为止,包括西安两栖犀属在內已发現有12属,我国过去只找到过代表两个属的少数化石,西安两栖犀这一新属的发現,对今后进一步研究和了解两栖犀类的历史很有价值。

这篇报告只对化石材料作簡单的記述,至于头骨及下頜骨的詳細描述及討論,将另文发表。笔者承周明鎮导师指导,并帮助修改中外文稿,深表感謝。

Amynodontidae

Sianodon gen. nov.

属型种: *Sianodon bahoensis* sp. nov.

属性特征及分布: 与属型种同。

Sianodon bahoensis gen. et sp. nov.

(图版I, 图1—1B; 图版II, 图1—2)

正型标本: 一个完整的头骨;牙齿部分除門齿外,其余全部保存完好。編号: 古脊椎动物与古人类研究所 V. 3015。

其他材料: 一个完整的下頜骨(地质研究所編号: 59003)。牙齿几乎全部保存,仅一对中門齿,右側門齿及左第三前臼齿缺失。一块破碎的左下頜骨,带有 M_2 及 M_3, 与完整的下頜骨采自同一地点(編号: V. 3015.1)。

* 1964年11月4日收到。

地点及层位: V. 3015 号正型标本产于西安毛西村，V. 3015.1 及 59003 号标本产于蓝田沙河子沟，白鹿塬組。化石的时代可能是晚始新世或早漸新世。

属性及属型种的特征: 一种面部及前臼齿列都縮得較短，臼齿变得較长的早期两栖犀。头骨較低而长，矢状脊很低；面部明显地縮短；眶后部很长；关节后突与听后突远远分开。顴弓不很宽，其宽度远小于 *Paramynodon* 中顴弓的宽度。

齿式 $\frac{2\cdot1\cdot3\cdot3}{2\cdot1\cdot2\cdot3}$。上、下門齿都已退化为两对，并不很大；上門齿中第二門齿稍大于第三門齿；下門齿中第三門齿远远大于第二門齿。犬齿較大而近于垂直。上、下前臼齿列的长度和臼齿列长的比列，与 *Amynodontopsis* 属的相近；上前臼齿列的长度稍小于上臼齿列长的 1/2；下前臼齿列长度稍大于下臼齿列长的1/3。上、下臼齿变长的程度較大，与北美 *Megalamynodon* 属的相近。臼齿横脊的傾斜度不太大。下臼齿外壁的纵沟仅成一浅平的凹陷。

头骨及上頰齿的测量（毫米：单位）

	Sianodon bahoensis gen. et sp. nov.
头长(前頜骨前沿到枕髁) Length of skull (anterior border of premaxillary-condylus occipitalis)	529
面部长(眶前沿到前頜骨前沿) Length of face (front of orbit-anterior border of premaxillary)	184
面部长/头长% Length of face/length of skull %	34.7
齿缺长 Length of diastema	21
犬齿处前頜骨宽 Width of premaxillary opposite canine	93
顴弓宽 Width of zygomatic arches	253
上頰齿列长 L., P^2—M^3	200
上前臼齿列长 L., P^2—P^4	65
上臼齿列长 L., M^1—M^3	154
上前臼齿列长/上臼齿列长% L., P^2—P^4/L., M^1—M^3%	42.2
第二上臼齿长 L., M^2	67
第二上臼齿宽 W., M^2	60
第二上臼齿宽/长% W./L.% M^2	89.5
第三上臼齿长 L., M^3	56
第三上臼齿宽 W., M^3	54
第三上臼齿宽/长% W./L.% M^3	96.4
M^2、M^3 原脊与外脊的夹角 Angle between metaloph and ectoloph of M^2, M^3	50°, 55°

下頜骨及下頰齿的测量（单位：毫米）

	Sianodon bahoensis gen. et sp. nov.	
	V. 3015.1	地质研究所编号 59003
下頜联合长 Length of symphysis	—	90
下齿缺长 Length of diastema	—	50
犬齿处下頜联合宽 Width of symphysis opposite canine	—	65
下頰齿长 L., P_3—M_3	—	186
下前臼齿列长 L., P_3—P_4	—	46
下臼齿列长 L., M_1—M_3	—	140
下前臼齿列长/下臼齿列长% L., P_3—P_4/L., M_1—M_3%	—	32.8
第二下臼齿长 L., M_2	35.5	47.5

第二下臼齿宽 W., M_2	24.2	30
第二下臼齿宽/长% W./L.%M_2	61.8	63.2
第三下臼齿长 L., M_3	43	55
第三下臼齿宽 W., M_3	23	28
第三下臼齿宽/长% W./L.%M_3	53.4	50.9
M_2、M_3 的下后脊与下次脊的夹角 Angle between metalophid and hypolophid of M_2,M_3	45°, 50°	60°

比較: 上述标本的許多性质；如：头骨較长，特別是眶后部；关节后突与听后突远远分开；矢状嵴很低；下頜骨垂直枝前沿在 M_3 后成斜坡式的上升；上、下前臼齿列的长度显著縮短；臼齿变长的程度較大及橫脊的傾斜度不太大等特点，表示出它与上始新統的 *Paramynodon*、*Amynodontopsis* 及*Megalamynodon* 等属很相近。但在另一些特点上，如个体特別大，面部特別縮短，齿缺也較短，上、下門齿都退化为两对，且不很大，犬齿較大而垂直生长，下臼齿外壁上沒有明显的縱沟等，显然較上述几属更为特化，但又远不如漸新統的 *Cadurcodon* 等属特化。

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A NEW GENUS OF AMYNODONT FROM THE EOCENE OF LANTIAN, SHENSI

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The present paper is a preliminary note of a new form of amynodont. The materials were discovered from the Lower Tertiary Bailuyuan formation at two near-by localities in Shensi Province. One of them is at Maoxicun Sian, found by a field party of Institute of Geology in 1959; the other is at Shahezigou, Xinjiezhen, in the neighbouring district of Lantian, by a field party of Institute of Vertebrate Palaeontology and Palaeoanthropology in 1963. The specimens are of interest because they represent a new form, different from any known genera of the amynodonts. The age of this new form may be regarded as Early Oligocene or Late Eocene.

Genus *Sianodon* gen. nov.

Type species: *Sianodon bahoensis* sp. nov.
Distribution and Diagnosis: as for the type species.

Sianodon bahoensis sp. nov.

Type: A complete and well preserved skull. Cat. no. IVPP V.3015.

Referred specimens: A complete mandible. Cat. no. IG 59003, a fragment of mandible with M_2 and M_3. Cat. no. IVPP V.3015.1.

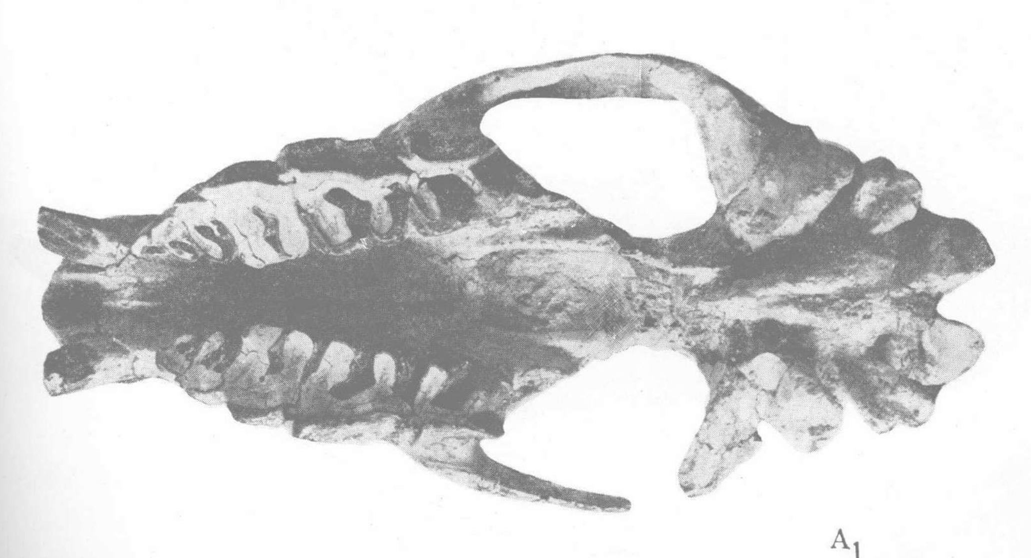
Locality and Horizon: See above.

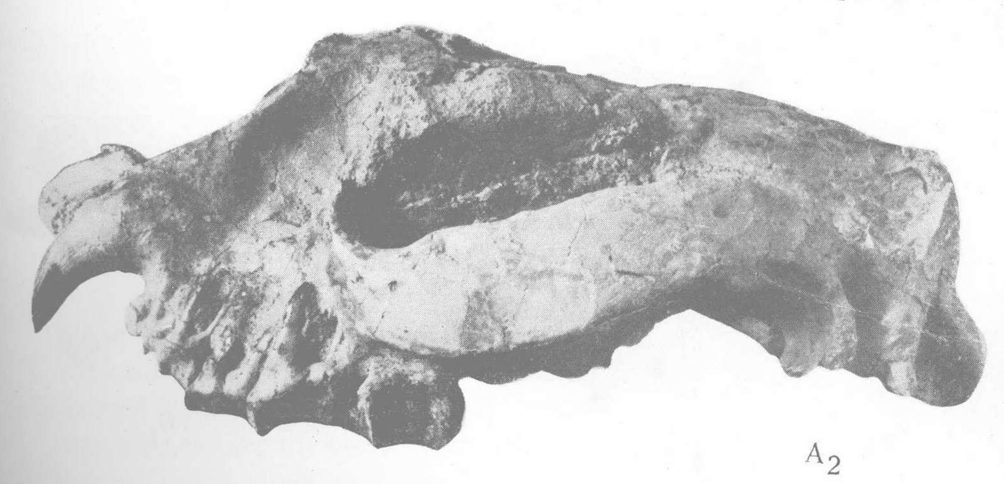
Diagnosis: An early amynodont, more specialized. Skull comparatively long and low, with a very shortened face and an elongated postorbital skull. Zygomatic arches not so expanded as in *Paramynodon.* The mandibular ramus long, the anterior border of ascending ramus does not arise perpendicularly as in late amynodonts, symphysis comparatively long.

Dental formula $\frac{2\cdot1\cdot3\cdot3}{2\cdot1\cdot2\cdot3}$ Incisors not very large, upper ones regularly diminishing in size from median to lateral; of lower incisors, I_3 larger than I_2. Canines comparatively larger and protruding upward. Reduction in length of premolars similar to that in *Amynodontopsis.* Length of upper premolar series smaller than one half of that for the upper molar series; of lower premolar series more than a third of that for the lower molar series. Upper and lower molars more elongated as in *Megalamynodon,* and trasverse crests not so much slanting. The external-longitudinal grooves of lower molars are less marked than in the other known species of the genus *Amynodon.*

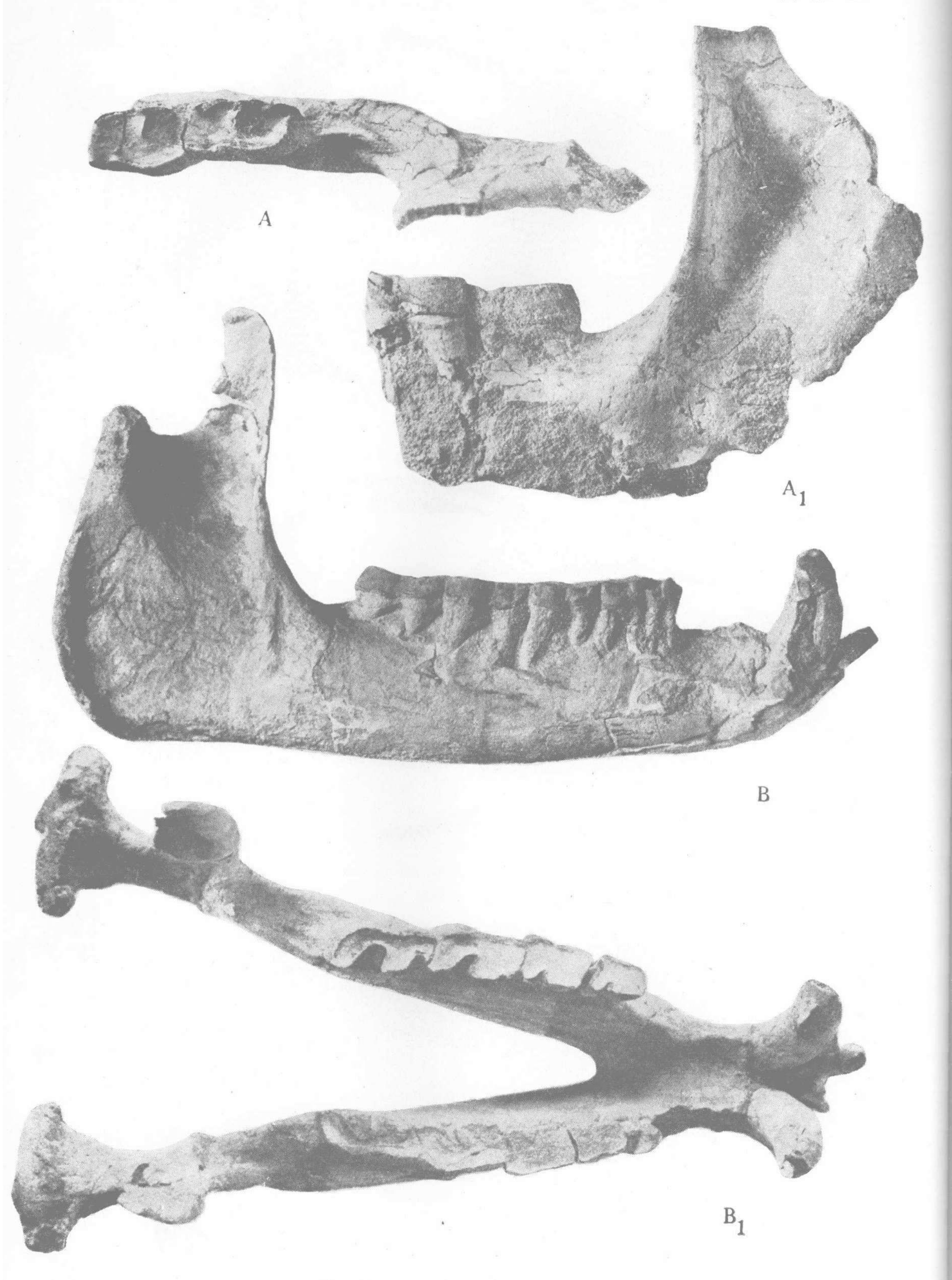
Comparison: Some characters of this new form are similar to that of *Amynodon, Amynodontopsis, Paramynodon* and *Megalamynodon* from Upper Eocene, such as that the skull is comparatively long, particularly the postorbital part, the postglenoid and paroccipital processes widely separated, the sagittal crest relatively low, the anterior border of ascending ramus mandible arises in slant, the length of upper and lower premolars is more reduced, the length of upper molars is more elongated and the transverse crests are not so much slanting. But this new form is larger in size; the face more shortened and the diastemas short too; upper and lower incisors reduced to two pairs and not very large; canines are larger and protruding upward; the external-longitudinal grooves of molars are so less marked that become almost invisible. All these characters are decidedly more specialized than in *Paramynodon* of Pondaung, but more primitive than *Cadurcodon* of Ardyn-Obo. This new form is evidently more primitive than any of the previously known Oligocene members in all characters, but more advanced than any of the previously known genera of Upper Eocene in some characters.







Sianodon bahoensis gen. et sp. nov. 头骨，V.3015，×1/4.
A—顶面视；A_1—腭面视；A_2—左侧面视。



Sianodon bahoensis gen. et sp. nov.

A—A_1 左下頜骨，古脊椎动物与古人类所编号：V. 3015.1，×1/2。A—冠面视；A_1—外侧面视。
B—B_1 下頜骨，地质研究所编号：59003，×1/3。B—左侧面视；B_1—冠面视。